PRENTICE COMPUTER CENTRE

UNIVERSITY OF QUEENSLAND, ST. LUCIA, QUEENSLAND, AUSTRALIA. 4067.

NEWSLETTER

N-288 March 1984

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Authorized by the Director of the Computer Centre

COMPUTING SUPPORT CENTRE FOR UNIVERSITY OF QUEENSLAND AND GRIFFITH UNIVERSITY

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1. Newsletter Summary

- New versions of the NAG software for numerical problems and the 1022 Data Base software have been installed on NEW:.
- Charge rates for Telecom's AUSTPAC service are announced and details of access to two new services via AUSTPAC – ACI and The Australian Beginning are given.
- Further details are given on the use of NFT, the DEC-10 Network File Transfer Program.
- KERMIT – a file transfer system for micro computers is now available for a range of machines.
- There are notes on Virtual Terminal access from RSX systems and DN87B.
- The schedule of future courses.

Director
extension 2189

2. New Version of NAG

A new version of NAG, a collection of algorithms for the solution of numerical problems, has arrived and is currently available on NEW:.

The new version, MARK 10, has 28 new primary routines and one routine has been deleted. It is recommended that the deleted routine C05NAF be replaced with C05NBF or C05NCF. A list of added routines is below. Description of the added routines is available in the NAG FORTRAN library manuals held for reference at the Hawken Batch Station.

Nag also advises that the routine D01FAF is due for withdrawal at the next release (MARK 11) and users are advised to replace this routine with D01GBF as soon as possible. This will avoid unnecessary problems with the arrival of MARK 11.

Added routines:

C06BAF	D01JAF	G13AJF	G13CEF
D01ARF	D01PAF	G13BAF	G13CFF
D01FDF	G01AJF	G13BCF	G13CGF
D01GBF	G05EAF	G13CAF	S18CCF
D01GCF	G05EHF	G13CBF	S18CDF
D01GYF	G05EJF	G13CCF	S18CEF
DO1GZF	G05EZF	G13CDF	S18CFF

Any problems regarding the latest release of NAG or any previous releases should be directed to me.

Lee MacDonald
extension 3943

3. New Version of 1022

Version 116A of 1022, a software database, has at long last arrived and is currently available on NEW:. There are a total of 18 changes, details of which can be obtained by printing the file 116A.MEM on DOC:.

Some of the changes users may find useful are the JOIN command, and the UPDATE PREVENT and UPDATE ALLOW commands. Both of these are described in

detail in 116A.MEM. The ability to SET an ALIAS for a dataset may be useful to some users and this is also described in detail. Date formats are also covered and users should take note of this section before using the new version.

Users should also obtain a copy of the file 1022.BWR on DOC: before using the new version. The beware file contains incompatibilities between the new and previous versions of 1022.

A list of online documentation for V116 can be obtained by typing HELP NEW: 1022.

Any users having difficulty with the new version can contact me on extension 3943.

Lee MacDonald
extension 3943

4. Further AUSTPAC News

It has come to my attention that ACI and The Australian Beginning are now connected to AUSTPAC. Users who used to access these systems by STD may now use the AUSTPAC dial-up PAD or the Centre's AUSTPAC gateway by the command

CALL (R)TAB (The Australian Beginning)

or

CALL (R)ACI

where the R option indicates the call is a "reverse charge" call, that is, the called party pays. The Australian Beginning have indicated users will be billed for the AUSTPAC charge incurred. I do not know what ACI's policy is.

If ACI and The Australian Beginning don't charge the AUSTPAC caller for AUSTPAC usage when the caller pays (some techniques of connecting to AUSTPAC don't tell the host whether the call was a reverse charge call or not) then it would probably be of economic advantage to establish an account on the AUSTPAC gateway, but this issue should be raised with the relevant site.

Arthur Hartwig
extension 4079

5. Charges for AUSTPAC Use

The charges levied by the Computer Centre for AUSTPAC use are:

Outgoing calls: 0.55c/minute connect time taken up to next minute and next cent in that order (thus 1 min 43 secs is charged as 2 minutes which costs 1.1c charged as 2c) and sum of transmitted and received segments charged at 0.09c per segment taken up to the next cent (thus 909 segments costs 81.81c charged as 82c). A segment is a unit of 64 characters or part thereof in a single packet. Thus a 65 character packet is charged as 2 segments.

Incoming reverse charge calls: As for outgoing calls but the connect time charge is multiplied by a factor of 10 since some reverse charge calls cost the Centre $3.30 per hour connect time and some $0.33 per hour and AUSTPAC doesn't tell us which is which. Incoming reverse charge calls are also charged a local telephone call charge (15c); again because the Centre may be charged this or it may not and there isn't any way to tell.

Incoming calls (not reverse charge): No charge.

Calls made from the telephone network by dialing one of the AUSTPAC numbers 01921, 01922 or 01923 are charged as incoming reverse charge calls.

The AUSTPAC gateway continues to bar outgoing international calls and will do so until OTC change their charging to be segment based rather than character based. It is anticipated this change will be made in the last quarter of this year. In the meantime the MIDAS program on the DEC10 may be used for dial-up access to sites connected to overseas public packet switching networks.

Arthur Hartwig
extension 4079

6. Additional Information on the DEC-10 Network File Transfer Program

The last newsletter announced the availability of the NFT program on the DECsystem 10 device NEW:. This program is now on the standard system directory SYS: and may be invoked by the command

.R NFT

The last article also omitted an important feature of NFT – the ability to reference VAX/VMS sub-directories and named directories. NFT has two allowable file specification types: DEC-10 for file specifications which conform to the DECsystem-10 file specification rules and "other" for those which don't. An"other" file specification must be enclosed in double quotes. For example, the NFT command

UQVAX::"[.FRED.NURK]" = *.RNO

will transfer from my current director on the DECsystem-10 all files whose extension is .RNO to node UQVAX subdirectory NURK of subdirectory FRED of my default LOGIN directory on node UQVAX.

Arthur Hartwig
extension 4079

7. Reminder about Virtual Terminal Access from RSX-11M to DEC-10

Supervisors of RSX-11M systems which also run DECNET are reminded that the current method of gaining terminal access to the DEC-10 using the LOG or VTY task will cease to operate after 31 March 1984. An alternative method using the RXT task which also offers better facilities is available right now. To obtain a copy of the RXT task contact Danny Smith (ext. 2921).

Arthur Hartwig
extension 4079

8. Performance of DN87SB

For a couple of months now DN87SB has not been able to operate correctly when the central VAX-11/780 node UQVAX has not been running its network software. This has resulted in DN87SB going out of the network when the VAX has crashed or when the VAX is running stand-alone (e.g. for disk backup).

The problem appears to be caused by the high speed communications interfaces

used in the link between the machines. It is hoped to rectify the problem by changing soon to lower speed interfaces.

Arthur Hartwig
extension 4079

9. KERMIT – A File Transfer System for Micros

Computer Centre staff have recently been evaluating KERMIT, a file transfer package for microcomputers. This package comes from Columbia University Centre for Computing Activities and seems to be gaining popularity in many countries.

Briefly, it allows communication to be established between two computers – mainframe to mainframe, mainframe to mini/micro/PC (henceforth collectively referenced as "micro") or micro to micro. The computers are connected together using a normal EIA RS232 ASCII terminal line on each computer. When a user invokes the KERMIT program on his local computer it emulates a terminal connected to the remote computer. When the KERMIT program is invoked on the remote computer, the two programs synchronize to allow fully error-checked file transfers to take place.

To date, KERMIT has been implemented as follows:

- KERMIT-32 for VAX/VMS
- KERMIT-65 for APPLE II 6502-based DOS systems
- KERMIT-10 for TOPS-10
- KERMIT-20 for TOPS-20
- KERMIT-86 for INTEL 8086 systems – this also has Z-100 support
- KERMIT-80 for CP/M machines, including variants for DEC VT180 Robin, DEC Rainbow, DEC-mate II, TRS-80 II, Osbourne I, Superbrain, Vector Graphics, Telcon Zorba, Ohio Scientific, Heath/Zenith 89, Heath/Zenith 100
- KERMIT-RT written in OMSI Pascal for RT-11
- UNIX-KERMIT supports UNIX-UNIX and UNIX-"other" file transfers
- KERMIT for IBM VM/CMS
- KERMIT for IBM PC
- KERMIT for Sorcerer.
- "Generic" KERMIT written in C for portability (?) amongst 8080 based micros.

We do **NOT** have all of these, but arrangements can be made to acquire them. So far, KERMIT has been implemented locally on nodes UQKL10 and UQVAX, and on Sorcerer, IBM PC and APPLE II micros. It is planned to also implement KERMIT for IBM VM/CMS, SIRIUS PC, NEC PC, DEC Rainbow, and PDP-11s running RT-11. It is hoped that an RSX-11M version will be available in the not too distant future. At this stage, any other implementations will have to be performed by users. Please direct all enquiries via the electronic mail name MICROS.

Bryan Claire
extension 4078

10. Information Concerning Courses

The following courses will be offered during the period April–June, 1984:

April

Typesetting	April 3–6 4 half days 9–12

Elementary BASIC Programming	April 9–13 5 half days 1–4
Introduction to PDP–10	April 16–19 4 half days 9–12
Introduction to PDP–10	April 16–19 4 half days 1–4
Elementary TECO Editing	April 26–27 2 half days 9–12

May

Introduction to PDP–10	May 1–4 4 half days 9–12
RUNOFF	May 8–11 4 half days 1–4.30
CAD/CAM	May 15–18 4 full days 9–12 + 1–4
SPSS	May 21–24 4 half days 9–1
1022	May 28–31 4 half days 9–1

June

Introduction to PDP–10	June 4–7 4 half days 9–12

Notes:

1. Users without basic knowledge and experience of the DEC–10 system, together with some facility in the use of an editor, MUST attend the course "Introduction to PDP–10" before enrolling in any other course (except for the CAD/CAM course).
2. A brief description of the content of each course was provided in Newsletter N–279.
3. All of the above courses will be held in Room G13A – Hawken Building (except for the CAD/CAM course, which is held in the Graphics Room, Hawken Building).
4. Enrolments for all courses may be made by phoning extension 3018.

Barry Maher
extension 3021

11. Departmental Equipment for Sale

For sale – 3 only PDP 11/10s, 16 Kword memory in 10.5" box. Contact

Maralyn Kenley
extension 3938